What is claimed is:

1. A production process for methanol comprising a synthetic gas production step in which hydrocarbon is reacted with steam to generate synthetic gas comprising main components of hydrogen, carbon monoxide and carbon dioxide, a methanol synthesis step in which said synthetic gas is reacted on a methanol synthesis catalyst and resulting crude methanol is recovered in the form of liquid, and a distillation step in which said recovered crude methanol is distilled to be separated into waste water containing low boiling organic compounds and high boiling organic compounds and refined methanol, wherein used in said methanol synthesis step is a reactor which comprises a reaction tube, an inner tube closed at a lower end thereof disposed almost in the center of the reaction tube, a central tube in which unreacted feed gas flows disposed almost in the center of the inner tube, and a circular catalyst layer charged with a granular catalyst disposed in a circular space surrounded by the reaction tube and the inner tube and in which said central tube is disposed almost in the center of a wholly or partially detachable shielding plate provided at the upper end of the reaction tube.

2. The production process for methanol as described in claim 1, wherein in the methanol synthesis step, the synthetic gas is reacted on the methanol synthesis catalyst at a reaction pressure of 80 to 120 $kg/cm^2 \cdot G$, and crude methanol is recovered in the form of liquid.

3. The production process for methanol as described in claim 1, wherein in the methanol synthesis step, the synthetic gas is reacted on the methanol synthesis catalyst at a catalyst layer inlet temperature of 180 to 260°C, and crude methanol is recovered in the form of liquid.

4. A reactor for methanol synthesis, wherein plural reaction tubes are disposed in the inside thereof; an inner tube closed at a lower end thereof is disposed almost in the center of the reaction tube; a central tube is disposed almost in the center of the inner tube; a circular space surrounded by the reaction tube and the inner tube is constituted as a granular catalyst-charged part; a shielding plate in which at lest one of the whole and a part thereof is detachable is disposed at the upper end of said reaction tube; said central tube is connected almost to the center of the shielding plate; fed unreacted gas flows downwards from the upper part of the central tube to flow into the inner tube from the lower outlet of the central tube; and further, said unreacted gas flows upwards through a circular duct surrounded by the inner tube and the reaction tube and flows downwards from the upper part of the granular catalyst-charged part.

5. The reactor for methanol synthesis as described in claim 4, wherein the inner tube disposed almost in the center of the plural reaction tubes and closed at a lower end thereof is in an upper position than the lower end of the reaction tube.

6. The reactor for methanol synthesis as described in claim 4 or 5, wherein the lower end of the central tube disposed almost in the center of the inner tube is in a position which is farther by 1/10 to 2/3 of the length of the reaction tube from the upper end of the reaction tube.